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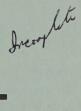
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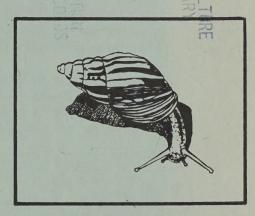


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Cooperative

# PLANT Just the PEST REPORT

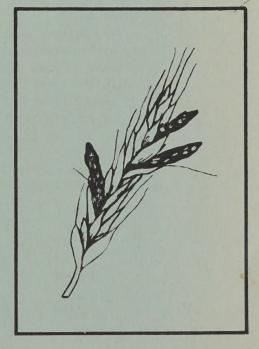






Animal and Plant Health Inspection Service

U.S. DEPARTMENT OF AGRICULTURE



This publication is distributed weekly to Federal and State agencies, universities, farmers, and others interested in containing or controlling pests in the United States.

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# COOPERATIVE PLANT PEST REPORT

# Volume 2

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1/ Also carried as <u>Chrysops</u> <u>vittatus</u> floridanus in Vol. 2.

Cnephia mutata a black fly 2/ Coccinella septempunctata a lady beetle 221 306 Coccotorus scutellaris plum gouger Coccus acutissimus a soft scale 729 Coccus elongatus long brown scale 322 Coccus pseudomagnoliarum citricola scale 275 Coccus viridis green scale 207 252 Cochliomyia hominivorax screwworm 38 39 53 63 85 105 136 162 172 184 199 222 249 286 307 325 351 371 394 423 474 499 519 547 573 625 627 651 731 749 768 801 825 837 856 874 Coconut mealybug Nipaecoccus nipae Coconut scale Aspidiotus destructor Codling moth Laspeyresia pomonella Colaspis pini pine colaspis 419 Coleomegilla maculata a lady beetle 260 261-262 349 543 Colias eurytheme alfalfa caterpillar 103 144 298 486 666 697 757 762 779 834 Colomerus vitis grape erineum mite 367 Colopterus spp. sap beetles 400 Colorado potato beetle Leptinotarsa decemlineata Common cattle grub Hypoderma lineatum Common green lacewing Chrysopa carnea Comperia merceti an encyrtid wasp 27 Compsilura concinnata a tachinid fly Comstock mealybug Pseudococcus comstocki Conchuela Chlorochroa ligata Conoderus sp. a wireworm 120 147 148 Conoderus falli southern potato wireworm 119 Conotelus stenoides a sap beetle 400 Conotrachelus sp. a weevil 859 Conotrachelus aratus 301 Conotrachelus nenuphar plum curculio 202 203 219 246 275 300 320 366 Contarinia sp. a cecidomyiid midge 577 Contarinia johnsoni grape blossom midge 441 Contarinia maculipennis 671 sorghicola sorghum midge 384 434 508 529 586 639 695 719 741

<u>2</u>/ Carried as <u>Stegopterna</u> <u>mutata</u> in Vol. 2.

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Convergent lady beetle Hippodamia convergens Cooley spruce gall aphid Adelges cooleyi Copitarsai sp. a noctuid moth 753 804 Coptotermes formosanus Formosan sub-terranean termite 225 391 Coquillettidia perturbans a mosquito 253 254 472 539 Corn earworm Heliothis zea Corn flea beetle Chaetocnema pulicaria Corn leaf aphid Rhopalosiphum maidis Corn planthopper Peregrinus maidis Corn root aphid Aphis maidiradicis Corn sap beetle Carpophilus dimidiatus Corythucha ulmi elm lace bug 304 Cossonus sp. a weevil 252 Cossus cossus a cossid moth 137 Cotinis nitida green June beetle 848 Cotton aphid Aphis gossypii Cotton fleahopper Pseudatomoscelis seriatus Cotton leafperforator Bucculatrix thurberiella Cottony maple scale Pulvinaria innumerabilis Cowpea aphid Aphis craccivora Cowpea curculio Chalcodermus aeneus Crambus spp. sod webworms 338 Crambus trisectus See Pediasia trisecta Cranberry fruitworm Acrobasis vaccinii Cranberry weevil Anthonomus musculus Cratypedes neglectus neglectus a grasshopper 600 Cribrate weevil Otiorhynchus cribricollis <u>Crioceris</u> asparagi asparagus beetle 188 218 245 274 300 490 Crioceris duodecimpunctata spotted asparagus beetle 274 Croesia albicomana oak leaftier 419 538 Crossotarsus sp. a platypodid beetle Crymodes devastator glassy cutworm 361 Cryptoblabes gnidiella a pyralid moth 859 879 Cryptococcus fagisuga beech scale 854 Cryptolaemus montrouzieri a lady beetle 70 Cryptophlebia leucotreta false codling

moth 839

<u>Cryptophlebia</u> <u>ombrodelta</u> an olethreu-tid moth 522 679 Cryptorhynchus fuscatus 549 Cryptorhynchus mangiferae mango weevil Cryptorhynchus olivieri 522 Cryptotermes brevis a termite 679 Ctenocephalides canis dog flea 258 Ctenocephalides felis cat flea 258 Culex spp. 369 391 730 Culex erythrothorax 250 253 Culex peus 250 253 Culex pipiens northern house mosquito 784 Culex pipiens pipiens 254 Culex restuans 472 Culex tarsalis 472 539 570 648 674 <u>Culiseta impatiens</u> a mosquito 369 <u>Culiseta incidens</u> 250 253 Culiseta inornata 221 Culiseta melanura 254 Culiseta silvestris minnesotae 1/ 706 708 <u>Curculio</u> <u>caryae</u> pecan weevil <u>206</u> 595 647 673 728 836 871 Curculio nucum a weevil 56 Currant borer Synanthedon tipuliformis Cyclamen mite Steneotarsonemus pall-Cyclocephala immaculata southern masked chafer 696 761 <u>Cylas formicarius elegantulus</u> sweet-potato weevil <u>188</u> Cylindrocopturus adspersus 165 Cystiphora schmidti a cecidomyiid

# midge 286 423 SLUGS & SNAILS

Cochlicella barbara a helicid snail
162
Cochlicella ventrosa 163

#### WEEDS

Canada thistle <u>Cirsium arvense</u>
<u>Carduus nutans</u> <u>musk thistle 653</u>
<u>Centaurea diffusa</u> diffuse knapweed 653
707 709
<u>Centaurea</u> <u>iberica</u> Iberian starthistle

1/ Carried as <u>Culiseta</u> <u>minnesotae</u> in error in Vol. 2.

Centaurea maculosa spotted knapweed 732 785 874 878

Centromadia pungens spikeweed 69 71 Chondrilla juncea rush skeletonweed 278 286 423 707 709 769

Cirsium arvense Canada thistle 801 802 Common crupina Crupina vulgaris
Common ragweed Ambrosia artemisiifolia

Crupina vulgaris common crupina 20 782

Cucumis melo var. dudaim dudaim melon 53

#### DISEASES

Diaporthe sp. a fungus 810 Diaporthe phaseolorum var. caulivora soybean stem canker 532 698 743 822 834 850 Diaporthe phaseolorum var. sojae soybean pod and stem blight 641 667 698 721 722 743 762-763 797 810 815

822 850 858 870 Dibotryon morbosum black knot 171 Diffusa powdery mildew Microsphaera

Diplodia spp. 759 777 793 807 Diplodia maydis diplodia stalk rot 1/ 732 740 760 777 792 821 846 858 <u>Diplodia pinea</u> pine tip blight 322 Diplodia stalk rot <u>Diplodia maydis</u> Dutch elm disease Ceratocystis ulmi

#### INSECTS

Dactynotus richardsi an aphid 20 Dacus sp. 252 Dacus cucurbitae melon fly 395 417 445 817

Dacus dorsalis oriental fruit fly 9 15 38 63 69 85 86 105 135 162 172 184 199 222 249 279 285 325 499 502 601 707 749 788

Darksided cutworm Euxoa messoria Datana integerrima walnut caterpillar 492

Dectes texanus texanus a cerambycid beetle 851

1/ Carried as maydis cornstalk rot in Vol. 2.

Deilephila nerii oleander hawk moth

Delphacodes nigrifacies a delphacid planthopper 17

Delta curvata a vespid wasp 12 14 Dendroctonus brevicomis western pine beetle 229 232

Dendroctonus frontalis southern pine beetle 6 62 69 84 135 228 231 232

323 729 813

Dendroctonus ponderosae mountain pine beetle 229

Dendroctonus pseudotsugae Douglas-fir beetle 229

Dendroctonus rufipennis spruce beetle

Dendroctonus simplex eastern larch beetle 230

Dermacentor albipictus winter tick 62

Dermacentor occidentalis Pacific Coast tick 259

Dermacentor variabilis American dog tick 221 248 259 277 305 420 Dermestes lardarius larder beetle 260 Desert corn flea beetle Chaetocnema ectypa

Desmia funeralis grape leaffolder 301

Devastating grasshopper Melanoplus devastator

Diabrotica spp. corn rootworms 4 108 114 116 293 382 411 433 464 483 507 529 559-560 615 664 695 719 732 741 778 847

Diabrotica longicornis northern corn rootworm 108 114 116 117 119 166 250 382 464 483 484 508 529 559 560 585-586 615 626 640 664 665 695 709 719 732 741 778 847 857

Diabrotica undecimpunctata howardi southern corn rootworm 116 117 148 149 214 242 293 382 411

Diabrotica undecimpunctata undecimpunctata western spotted cucumber beetle 177 416

Diabrotica virgifera western corn rootworm 108 114-119 382 411 433 439 464 483 484 507 508 529 549 559 560 568 574 585 601 615 626 653 664 665 676 695 719 732 741 750 761 778 786 832 837 847 858

Diachlorus ferrugatus a tabanid fly

Diacrisia virginica yellow woolybear 723 Dialeurodes citri citrus whitefly 38 Dialeurodes <u>kirkaldyi</u> 652 708 Diamondback moth <u>Plutella</u> <u>xylostella</u> Diaparsis n.sp. 284 Diaparsis spp. ichneumonid wasps 263 330 369 392 542 549 574 597 601 623 626 648 653 Diapheromera femorata walkingstick 836
Diapheromera velii 412 425
Diaphnocoris chlorionis a plant bug Diaprepes abbreviatus West Indian sugarcane root borer 286 769 Diaspidiotus liquidambaris an armored scale 7 13 Diaspidiotus uvae grape scale 302 Diatraea grandiosella southwestern corn borer 20 108 111-112 133 159 432 463 507 528 558 614 637 663 694 718 778 794 821 847 Diatraea saccharalis sugarcane borer 112 120 265

Dichocrocis punctiferalis yellow peach moth 56 310 879 Dichomeris ianthes alfalfa leaftier 321 325 Dichomeris marginella juniper webworm Dichromothrips corbetti vanda thrips Differential grasshopper Melanoplus differentialis Dimidiatus sp. a sap beetle 398 399 400 402 404 Dingy cutworm Feltia ducens Dioryctria zimmermani Zimmerman pine moth 20 220 647 653 Diprion similis introduced pine sawfly Dog flea Ctenocephalides canis Dolichotetranychus carnea a false spider mite 20 Douglas-fir beetle Dendroctonus pseudotsugae Douglas-fir tussock moth Orgyia pseudotsugata Drepanopterna femoratum a grasshopper Driedfruit beetle Carpophilus hemipterus

Dryocampa rubicunda greenstriped

mapleworm 231 234

Dryocoetes villosus a scolytid beetle
426 817
Dryocosmus kuriphilus chestnut gall

wasp 276

Dusky sap beetle Carpophilus lugubris

Dysaphis plantaginea rosy apple aphid 196 320

Dyscinetus sp. a scarab 552

Dysides Obscurus a bostrichid beetle
426

Dysmicoccus alazon a mealybug 441 obesus 6 13

SLUGS & SNAILS

Deroceras caruanae a slug 880

WEEDS

Dalmatian toadflax <u>Linaria</u> <u>dalmatica</u>
Diffuse knapweed <u>Centaurea</u> <u>diffusa</u>
Dudaim melon <u>Cucumis</u> <u>melo</u> var. <u>dudaim</u>
Dyers woad <u>Isatis</u> <u>tinctoria</u>

E

DISEASES Ear rots 718 821 832 846 Echidnodes sp. a fungus 374 Elm phloem necrosis virus 232 Elsinoe australis sweet orange scab 86 328 879 Elytroderma deformans elytroderma needle blight 230 Elytroderma needle blight Elytroderma deformans Entomophthora phytonomi an insect fungus 143 443 Ergot Claviceps purpurea Erwinia amylovora fire blight 195 246 274 320 346 366 388 418 Erwinia stewartii Stewart's wilt 119 361 557 583 613 636 662 693 718 740 759 777 808 Erysiphe graminis f.sp. hordei barley powdery mildew 242 294 Erysiphe graminis f.sp. tritici wheat powdery mildew 133 192 214 242 293-294 316 339 485 Eyespot Pyrenophora trichostoma Erwinia rubrifaciens bacterial phloem

#### INSECTS

Earias biplaga a noctuid moth 859 Earias insulana spiny bollworm 374 Ear tick Otobius megnini

Eastern larch beetle Dendroctonus simplex

Eastern spruce gall aphid Adelges abietis

Eastern subterranean termite Reticulitermes flavipes
Eastern tent caterpillar Malacosoma

americanum

Eggplant fruit borer Leucinodes orbonalis

Egyptian alfalfa weevil Hypera brunneipennis

Egyptian cottonworm Spodoptera litura Ehrhornia cupressi a mealybug 389 395 Eightspotted forester Alypia octomacu-

lata 
 Elasmopalpus
 lignosellus
 lesser cornstalk

 stalk borer
 112
 148-149
 338
 362
 386

 436
 463
 466
 487
 510-511
 532
 533
 564
 587 589 590 619 663 700 765 778 782 795 799

Elatobium abietinum spruce aphid 84

Elm calligrapha Calligrapha scalaris

Elm lace bug <u>Corythucha ulmi</u> Elm leaf beetle <u>Pyrrhalta luteola</u>

Elm sawfly Cimbex americana Elm spanworm Ennomos subsignarius Elongate hemlock Fiorinia externa

Ematurga amitaria a geometrid moth 208 Empoasca fabae potato leafhopper 87 97 213 292 314 336 360 380 408 430 462

482-483 506 527 556 582 612 634 660 691 716 738 791

Empoasca solana southern garden leaf-hopper 573

Encarsia sp. a eulophid wasp 652 653 Encoptolophus sordidus a grasshopper 444

Endria inimica painted leafhopper 340

English grain aphid Macrosiphum avenae Ennomos subsignarius elm spanworm 236 Eotetranychus sexmaculatus sixspotted mite 322

Ephialtes ontario an ichneumonid wasp

Epidiaspis leperii Italian pear scale

Epilachna paenulata a coccinellid beetle 788

Epilachna varivestis Mexican bean beetle 147-148 176 177 264 285 319 323 343 364 365 414 416 435-436 438 439 473 514 533 564 724 727 745 764 779

Epitrix hirtipennis tobacco flea beetle 175 536

Epitrix tuberis tuber flea beetle 175 438 468

Erannis tiliaria linden looper 235 Ergates faber a cerambycid beetle 477 Eriborus terebrans an ichneumonid wasp

Eriococcus araucariae an eriococcid scale 516 520

Eriococcus azaleae azalea bark scale 68 72 227 308

Eriococcus coccineus 873 877 Eriococcus insignis 20

Eriococcus quercus 516 520 Eriophyes baccharipha an eriophyid mite 784 786

Eriophyes chondrillae 278 423 Eriophyes granati 548 549 707 709 Eriosoma lanigerum woolly apple aphid

Eriotremex formosanus a siricid wasp

Eritettix sp. a grasshopper 351 Erythroneura elegantula a leafhopper 389 704 728 732

Estigmene acrea saltmarsh caterpillar 276 723. Light traps: 178 200 224 251 281 309 326-327 353 373 396 424 446 447 475 501 521 550 551 575 576 602

628 629 654 655 677 710 733 751 752 770 787 803 816 838

Euacidalia brownsvillea a geometrid moth 875 877 878

Eubazus rotundiceps a braconid wasp 730 731

Eucalymnatus tessellatus tessellated scale 322 442

Eucelatoria sp. a tachinid fly 548 594 Eucelatoria armigera 548

Euceratocerus gibbifrons an anobiid beetle 20

Euderes lineicollis a weevil 859 Euetheola rugiceps sugarcane beetle 295 338 362 411

Euleia heraclei celery fly 880 Euonymus scale Unaspis euonymi Eupteromalus tachinae a pteromalid wasp 250 264 Eurasian pine adelgid Pineus pini European cherry fruit fly Rhagoletis cerasi Furopean corn borer Ostrinia nubilalis European crane fly Tipula paludosa European earwig Forficula auricularia European elm scale Gossyparia spuria European fruit lecanium Lecanium corni European fruit scale Quadraspidiotus ostreaeformis European pine sawfly Neodiprion sertifer European pine shoot moth Rhyacionia buoliana European red mite Panonychus ulmi Euscepes postfasciatus West Indian sweetpotato weevil 426 445 Euschistus servus brown stink bug 159 835 Eutetranychus banksi Texas citrus mite 207 220 Euxoa auxiliaris army cutworm 3 51 59 67 83 87 88 89 103 133 159 169 181 191 213 241 269 291 313 379 407 425 429 845 867. Light traps: 251 281 309 326 373 446 475 501 550 677 803 838 849 Euxoa detersa sandhill cutworm 414 881 883 886 Euxoa messoria darksided cutworm 361 Euxoa ochrogaster redbacked cutworm 165 208

F

Fig cyst nematode Heterodera fici

Exartema valdanum an olethreutid moth

#### DISEASES

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Fire blight Erwinia amylovora
Frogeye leaf spot Cercospora sojina
Fusarium spp. stalk rots and ear
rots 693 718 759 760 777 792 793 807
808 811 815 821 831 832 845 846 847
870
Fusarium conglutinans var. betae
fusarium yellows 415
Fusarium yellows Fusarium conglutinans
var. betae
Fusiform rust Cronartium fusiforme

INSECTS

Face fly Musca autumnalis Fall armyworm Spodoptera frugiperda Fall cankerworm Alsophila pometaria Fall webworm Hyphantria cunea False celery leaftier Udea profundalis False chinch bug Nysius ericae False codling moth Cryptophlebia leucotreta Faronta diffusa wheat head armyworm 294. Light traps: 224 251 281 309 326 353 373 446 475 501 550 575 602 678 710 751 Feltia ducens dingy cutworm 88 352 361 381 882 883 885 Feltia subterranea granulate cutworm 149 300 365 564 590 619. Light traps: 106 152 162 178 185 200 224 251 281 309 326 353 373 396 424 446 475 501 521 550 575 602 628 654 677 710 733 751 770 787 803 816 826 838 849 876 Fenusa pusilla birch leafminer 237 277 302 390 471 705 708 Fern scale Pinnaspis aspidistrae Ferrisia virgata striped mealybug 70 420 425 Filbert bud mite Phytocoptella avellanae Filbertworm Melissopus latiferreanus Fiorinia externa elongate hemlock scale Fiorinia theae tea scale 6 13 226 516 520 872 878 Floodwater mosquito Aedes sticticus Florida wax scale Ceroplastes floridensis Forage looper Caenurgina erechtea Forest tent caterpillar Malacosoma disstria Forficula auricularia European earwig 21 Formica altipetens 71 Formica densiventris 71 Formica exsectoides Allegheny mound ant 303 Formica obscuriventris obscuriventris Formica opaciventris 71 Formica perpilosa 200 Formica subsericea 71 Formosan subterranean termite Coptotermes formosanus Fornax samoensis a eucnemid beetle 105 106

Frankliniella spp. 149 152 Frankliniella fusca tobacco thrips 48 149 274 533

Frankliniella lilivora 679

Frankliniella occidentalis western flower thrips 197 200 307 371 425 499 745 875

Fruittree leafroller Archips argyrospilus

Fumibotys fumalis a pyralid moth 165 Furcaspis biformis an armored scale

Furchadaspis zamiae an armored scale 199 200

Furcipus rectirostris a weevil 310

#### DISEASES

Gaeumannomyces graminis var. tritici take-all 1/121 339 433 465 485 Gibberella sp. a rot 693 759 760 777 793 807 808 821 832

Gibberella fujikuroi See Gibberella

(Fusarium) monififorme

Gibberella (Fusarium) moniliforme moniliforme rots 2/ 693 717 759 777 792 815 821 846 858

Gibberella (Fusarium) roseum f.sp. <u>cerealis</u> gibberella stalk rot 3/ 718 739 759 777 792 808 821 845 846 858 Gibberella (Fusarium) roseum f.sp. cerealis red ear rot 3/ 777 821 846 847 858

Gibberella stalk rot Gibberella (Fusarium) roseum f.sp. cerealis Globodera pallida potato cyst nematode

Globodera rostochiensis golden nematode 321 374 656 817

Glomerella spp. anthracnoses 870 Glomerella glycines soybean (glycines) anthracnose 763 781 811 823 850 858 Gnomonia platani sycamore anthracnose

Golden nematode Globodera rostochiensis

- 1/ Carried as Gaumannomyces graminis in Vol. 2.
- 2/ Carried as Gibberella fujikuroi fujikuroi rot in Vol. 2.
- 3/ Carried as roseum rot in Vol. 2.

Gonatobotrys zeae gonatobotrys kernel rot 821 846 858

Gonatobotrys kernel rot Gonatobotrys zeae

Goss wilt Corynebacterium nebraskense Graminicola anthracnose Colletotrichum graminicola 4/

Grass downy mildew Sclerophthora macrospora

Gremmeniella abietina scleroderris

Canker 5/ 229
Guignardia citricarpa citrus black
spot 679 839

Gymnosporangium clavipes quince rust

Gymnosporangium juniperi-virginianae cedar-apple rust 197 218 246 346 440

#### **INSECTS**

Gymnetron sp. a weevil 804 Galleria mellonella greater wax moth

Garden symphylan Scutigerella immacu-

Garden webworm Loxostege rantalis Gasterophilus haemorrhoidalis nose bot fly 258

Gasterophilus intestinalis horse bot fly 258

Gelechia ericitella a gelechiid moth

Geococcus coffeae a mealybug 249 Geocoris spp. bigeyed bugs 265 Geocoris punctipes 306 349 Geotomus pygmaeus a cydnid bug 448 German cockroach Blattella germanica Giant bark aphid Longistigma caryae Giant hornet Vespa crabro germana Gitonides perspicax a mealybug predator fly 70

Gladiolus thrips Taeniothrips simplex Glassy cutworm Crymodes devastator Gloomy scale Melanaspis tenebricosa Goat sucking Touse Linognathus stenop-

Gossyparia spuria European elm scale

- 4/ Carried as Colletotrichum graminicolum in Vol. 2
- 5/ Carried as Scleroderris lagerbergii in Vol. 2.

Gotra sp. an ichneumonid wasp 17 Gracillaria negundella boxelder leafroller 236 Granulate cutworm Feltia subterranea Grape berry moth Paralobesia viteana Grape blossom midge Contarinia johnsoni Grape cane gallmaker Ampeloglypter sesostris Grape erineum mite Colomerus vitis Grape leaffolder Desmia funeralis Grape root borer Vitacea polistiformis Grape scale Diaspidiotus uvae Graphognathus spp. whitefringed heetles 242 365 436 511 547 625 676 874 878 Grapholitha funebrana plum fruit moth 827 Grapholitha molesta oriental fruit moth 202 219 300 440 470 491 595 672 Grapholitha packardi cherry fruitworm 208 Grass bugs 370 473 Grasshoppers 199 279 284 306 324 350 370 394 421-422 444-445 473 487 498 518 532 533 545-546 571 588 589 600 615 616 624 639 640 675 697 706 730 749 768 801 813-814 836 Grass thrips Anaphothrips obscurus Grass webworm Herpetogramma licarsisalis Greater wax moth Galleria mellonella Greedy scale Hemiberlesia rapax Greenbug Schizaphis graminum Green cloverworm Plathypena scabra Greenhouse whitefly Trialeurodes vaporariorum Green June beetle Cotinis nitida Green peach aphid Myzus persicae Green scale Coccus viridis Green stink bug Acrosternum hilare Greenstriped mapleworm Dryocampa rubicunda Groundnut bruchid Caryedon serratus Gryllotalpa africana African mole cricket 522

Gulf Coast tick Amblyomma maculatum

Gymnaspis aechmeae an armored scale

Gypsy moth Lymantria dispar

#### SLUGS & SNAILS

Giant African snail <u>Achatina</u> <u>fulica</u> Gray garden slug <u>Agriolimax</u> <u>reticu</u>latum

# H

### DISEASES

Helminthosporium carbonum helminthosporium leaf spot 583 636 661 692 717 739 759 776 791 807 Helminthosporium leaf spot Helminthosporium carbonum Helminthosporium maydis southern leaf blight 661 692 717 739 759 776 Helminthosporium tritici-vulgaris wheat leaf spot 848 Helminthosporium turcicum northern leaf blight 557 692 717 759 791 807 Helminthosporium vagans melting out Heterodera avenae oat cyst nematode 374 522 Heterodera fici fig cyst nematode 630 Heterodera glycines soybean cyst nematode 21 136 147 563 574 618 626 798 8 851 857 Heterodera schachtii sugar beet nematode 812 INSECTS Haemaphysalis sp. a hardbacked tick Haematobia irritans horn fly 62 84 162 172 184 198 220 248 253 256-257 277 304 323 348 368 390 420 442 471 493 517 539 570 596 623 648 674 705 730 748 768 785 813 836 854 Haematopinus eurysternus shortnosed cattle louse 52 258 Haematopinus quadripertusus cattle tail louse 253 258 813 Haematopinus suis hog louse 69 248 Hairy chinch bug Blissus leucopterus hirtus Halisidota argentata silverspotted tiger moth 161 171 233 247 280 302

372

547 572 616 707 749 785 824 855

Halisidota caryae hickory tussock

Hemispherical scale <u>Saissetia coffeae</u> Herpetogramma licarsisalis grass webworm 12 499 548 Hesperotettix sp. a grasshopper 351 Hessian fly Mayetiola destructor Heterocampa biundata 234 Heterocampa guttivitta saddled prominent 231 234 420 Heterospilus baeticatus a braconid wasp 11 13 Heterotermes tenuis a termite 15 Hexarthrum ulkei a weevil 85 Hickory shuckworm Laspeyresia caryana Hickory tussock moth Halisidota carvae Hierodula patellifera a mantid 745 750 Hippobosca longipennis a louse fly 253 Hippodamia spp. lady beetles 278 336 342 349 473 <u>Hippodamia</u> convergens convergent lady beetle 85 162 198 260 261 262 278 306 369 408 421 543 813 Hog louse Haematopinus suis Hollyhock weevil Apion longirostre Homadaula anisocentra mimosa webworm 52 54 223 235 348 596 601 673 676 824 825 Homoeosoma electellum sunflower moth 165 513 536 567 621 627 646 703 727 Honey bee Apis mellifera Hoplia sp. a scarab 426 Hormaphis hamamelidis an aphid 238 Horn fly Haematobia irritans Horse bot fly Gasterophilus intestin-House fly Musca domestica Howardia biclavis mining scale 492 Hybomitra lasiophthalma a tabanid fly Hybomitra nuda 472 Hybomitra sonomensis 570 Hydrothassa vittata a chrysomelid beetle 21 Hylastes ater a scolytid beetle 73 Hylastes attenuatus 788 Hylastes opacus 804 Hylemya antiqua onion maggot 320 417 Hylemya brassicae cabbage maggot 320 Hylemya platura seedcorn maggot 147 148 176 242 300 387

Hylobius sp. 448 788 Hylobius abietis 40 Hylobius pales pales weevil 220 223 Hylotrupes bajulus old house borer 100 259 305 854 857 874 878 Hylurgopinus rufipes native elm bark beetle 705 709 813 815 Hylurgops palliatus a scolytid beetle 56 448 502 577 Hylurgus ligniperda a scolytid beetle Hypena strigata lantana defoliator caterpillar 12 Hypera brunneipennis Egyptian alfalfa weevil 103 182 439 Hypera meles clover head weevil 216 Hypera nigrirostris lesser clover leaf weevil 244 720 732 Hypera postica alfalfa weevil 4 7-8 24 25-26 59 67 83 103 134 136 138-143 160 162 170 182 184 193-194 198 215-216 243-244 262 263 264 271-272 278 296-297 305 317-318 321 323 340 363 385 412-413 434-435 439 443 465 473 486 509 531 623 697 720 840-842 849 854 855 870 Hypera punctata clover leaf weevil 182 216 Hypericicoccus hyperici an eriococcid scale 21 Hyperodes maculicollis a weevil 125 <u>Hyphantria cunea fall webworm 206 231</u> <u>233-234</u> 388 440 441 442 492 569 570 596 622 647 673 705 Hypoderma bovis northern cattle grub Hypoderma lineatum common cattle grub

#### SLUGS & SNAILS

7 52 62 69 84 198 257 874

Hypoponera punctatissima an ant 652

Helicella sp. a helicid snail 817 Helicella conspurcata 355 837 Helicella cretica 173 502 Helicella joppensis 448 Helicella krynickii 788 817 Helicella maritima 163 Helicella neglecta 771 Helicella striata 374 827 Helix aperta 107 Helix aspersa brown garden snail 12 21 70 136 351 367 372 856 876 Helix pomatia 577

#### WEEDS

Helianthus ciliaris Texas blueweed 70 Hemp broomrape Orobanche ramosa Heteropogon contortus tanglehead 10 Horsenettle Solanum carolinense Hydrilla Hydrilla verticillata <u>Hydrilla</u> verticillata hydrilla 21 391 395 513 520 574 627 750 814

INSECTS Ichthyura inclusa poplar tentmaker 729 Imported cabbageworm Pieris rapae Imported longhorned weevil Calomycterus setarius Incisitermes minor western drywood termite 854 858 Incisitermes snyderi 259 Indian meal moth Plodia interpunctella Introduced pine sawfly Diprion similis Ips cembrae a scolytid beetle 15 310 Ips typographus 15 40 712 Irbisia brachycera a grass bug 124 125 473 Irbisia pacifica 124 125 370 473 Irbisia shulli 124 125 Iridomyrmex pruinosus analis an ant 71

Italian pear scale Epidiaspis leperii Itoplectis conquisitor an ichneumonid wasp 622

Ixodes scapularis blacklegged tick 874

#### WEEDS

Iberian starthistle Centaurea iberica Isatis tinctoria dyers woad 499



### DISEASES

Juniperovora twig blight Phomopsis juniperovora

#### INSECTS

Jack pine budworm Choristoneura pinus Janus abbreviatus willow shoot sawfly 596 601

Japananus hyalinus a leafhopper 705
709
Japanese heetle Popillia japonica

Japanese beetle <u>Popillia japonica</u> Juniper webworm <u>Dichomeris marginella</u>

# K

#### DISEASES

Kabatiella eyespot <u>Kabatiella zeae</u> <u>Kabatiella zeae</u> kabatiella eyespot 739

#### INSECTS

<u>Kampimodromus</u> <u>aberrans</u> a phytoseiid mite 59 <u>Keiferia</u> <u>1ycopersicella</u> tomato pinworm <u>174</u> 249 621 626 875

Kermes branigani a gall-like scale 813 815

Khapra beetle Trogoderma granarium

L

#### DISEASES

Leptosphaerulina leaf spot Leptosphaerulina briosiana
Leptosphaerulina briosiana leptosphaerulina leaf spot 193 243 271 295
317 434 742 795
Lima bean downy mildew Phytophthora
phaseoli
Little cherry virus 800 802
Loose smut Ustilago nuda
Lophodermella concolor concolor needle
blight 230

### INSECTS

Labops spp. grass bugs 124 125 599
Labops hesperius 124 125 215 271 306
350 394 421
Labops hirtus 599 601
Labops utahensis 124 125
Lambdina fiscellaria somniaria western oak looper 673
Lampides boeticus bean butterfly 64
880
Lantana defoliator caterpillar Hypena strigata

Labopidea allii onion plant bug 417

Lantana hispid Uroplata girardi Larch sawfly <u>Pristiphora erichsonii</u> Larder beetle <u>Dermestes lardarius</u> Large aspen tortrix Choristoneura conflictana Large white butterfly Pieris brassicae Lasius crypticus an ant 71 Lasius fallax 71 Laspeyresia caryana hickory shuckworm 206 247 470 836 852 <u>Laspeyresia pomonella codling moth 196</u> 202 274 320 346 418 440 470 491 569 595 647 672 704 748 767. Light traps: 281 710 Laspeyresia fagiglandina an olethreutid moth 56 Laspeyresia splendana 15 Latania scale Hemiberlesia lataniae Lawn armyworm Spodoptera mauritia Leaffooted bug Leptoglossus phyllopus Lecanium corni European fruit lecanium 5 705 709 Lecanium coryli 246 250 Lecanium nigrofasciatum terrapin scale 68 72 204 246 492 516 520 Lecanium quercifex oak lecanium 197 Lecanodiaspis prosopidis a lecanodias-pid scale 63 68 72 Leek moth Acrolepia assectella Lema bilineata a chrysomelid beetle Lema gallaeciana 859 Lemophagus curtus an ichneumonid wasp 284 331 349 393 543 649 653 Leperisinus aculeatus a scolytid beetle 7 14 Leperisinus californicus 7 13 14 21 Lepidosaphes pini an armored scale 73 Lepidosaphes tokionis 163 Lepidosaphes ulmi oystershell scale 275 304 366 <u>Lepidosaphes yanagicola 223 227</u> <u>Leptinotarsa decemlineata Colorado</u> potato beetle 174 175 195 218 245 319 344 387 416 468 489 536 568 594 747 Leptobyrsa decora a tingid bug 12 Leptoglossus corculus a leaffooted bug Leptoglossus phyllopus 159 Leptoglossus zonatus 178 Leptopterna dolabrata meadow plant bug 126 340 Leptoypha minor a tingid bug 390

<u>Leptynoptera sulfurea</u> a psyllid 825 <u>Lesser clover leaf weevil Hypera</u> nigrirostris Lesser cornstalk borer Elasmopalpus lignosellus Lesser mealworm Alphitobius diaperinus Lesser peachtree borer Synanthedon pictipes <u>Leucania</u> sp. probably <u>insecuta</u> (a noctuid moth) See <u>L. striata</u> Leucania striata 1/878
Leucinodes orbonalis eggplant fruit
borer 40 552 Leucoma salicis satin moth 236 517 Leucopis sp. a chamaemyiid fly 856 Leucopis nigraluna 876 Leucopis obscura 280 796 Leucoptera laburnella a lyonetiid moth Leucotabanus annulatus a tabanid fly 887 889 Ligyrocoris litigiosus a lygaeid bug Ligyrus sp. a scarab 355 Lilac borer Podosesia syringae Linden looper Erannis tiliaria Linognathus stenopsis goat sucking louse 184 Linognathus vituli longnosed cattle louse 52 84 258 Liogenys macropelma a scarab 186 328 Lipamyzodes mathiolae an aphid 104 106 Liriomyza spp. leafminer flies 11 70 136 280 307 325 371 395 445 515 548 573 621 652 671 707 745 765 786 875 Liriomyza munda vegetable leafminer 176 187 227 300 365 Liriomyza sativae 8 416 438 Lissorhoptrus chapini chapini 815 Lissorhoptrus oryzophilus rice water weevil 122 294 696 Listroderes costirostris obliquus vegetable weevil 183 <u>Lithocolletis crataegella</u> a gracil-lariid moth 491 Lithophane laticinerea a noctuid moth 517 520 Lixophaga diatraeae a tachinid fly 260 265

Lobesia botrana an olethreutid moth 804 827 Lobiopa insularis a sap beetle 400 Loblolly pine sawfly Neodiprion taedae linearis Locusta migratoria a grasshopper 252 Locust borer Megacyllene robiniae Locust leafminer Odontota dorsalis Lone star tick Amblyomma americanum Long brown scale Coccus elongatus Longistigma caryae giant bark aphid Longitarsus jacobaeae a chrysomelid beetle 260 261 Longitarsus waterhousei 536 Longnosed cattle louse Linognathus vituli Longtailed mealybug Pseudococcus longispinus Lophyroplectus luteator an ichneumonid wasp 368 Loxagrotis albicosta western bean cutworm 106 108 114 464 507 528 559 585 601 615 638 653 664 695 709 741 Loxosceles reclusa brown recluse spider 349 Loxostage commixtalis alfalfa webworm Loxostege rantalis garden webworm 466 531 533 562 564 588 589 617 640 667 742 779 Loxostege sticticalis beet webworm 435 Light traps: 446 475 521 654 677 710 Lubber grasshopper Brachystola magna Lygus spp. lygus bugs 144 152 164 178 509 562 Lygus lineolaris tarnished plant bug 135 152 176 183 195 210 217 218 246 271 299 301 343 415 438 467 486 489 509 513 531 535 567 620 645 721 <u>Lymantria</u> <u>dispar</u> gypsy moth 9 21 38 105 106 198 199 228 229 248 262 264 265 279 284 306-307 324 351 394 425 444 474 498 518 546 600 625 651 676 <u>Lysiphlebus</u> <u>testaceipes</u> an aphidiid wasp <u>96-97</u> 135 198 <u>262</u> 292 305 323

nsec- L

<u>Limacolaria</u> <u>numidica</u> a snail 771

SLUGS & SNAILS

336 349 420 571 611 612 649 675 758

Lystridea wilkeyi a leafhopper 384 395

1/ Carried as <u>Leucania</u> probably <u>insecuta</u> in Vol. 2.

#### WEEDS

<u>Linaria dalmatica</u> dalmatian toadflax 308 372 439 625 626 Lychnis alba white cockle 386

# M

#### DISEASES

 Macrophoma
 oleae
 a fungus
 879

 Macrophomina
 phaseolina
 charcoal
 rot

 532
 636
 641
 662
 693
 699
 722
 740
 763

 781
 792
 798
 811
 822
 831
 846
 850
 858

 870

 Maize
 chlorotic
 dwarf
 virus
 636

Maize dwarf mosaic virus 431 527 555 583 613 636 662 694 718 740 750 847 857 868 877

Melting out Helminthosporium vagans Microsphaera diffusa diffusa powdery mildew 743 763 781 798 802 811 823 835 851

Monilinia fructigena a fungus 522 Mosaic dwarf agent 558 584 Mycosphaerella sp. a fungus 15 352 355 Mycosphaerella caryigena pecan downy spot 68

Mycosphaerella tassiana a fungus 328

#### INSECTS

McDaniel spider mite <u>Tetranychus</u> mcdanieli

Macalla thyrsisalis a pyralid moth 276 Macroglossum pyrrhostictum a sphingid moth 18 671 676

Macrosiphoniella sanborni chrysanthemum aphid 196

Macrosiphum avenae English grain aphid 95 122 123 159 294 408 434 465 506 869

Macrosiphum euphorbiae potato aphid 302 345

Macrosiphum liriodendri tuliptree aphid 238 623 626 800 802

Macrosteles fascifrons aster leafhopper 87 91 159 191 213 241 269 291 313 335-336 360 407 429 461 505 845 Magdalis sp. a weevil 730

Maize billbug <u>Sphenophorus</u> maidis Malacosoma spp. 203 491

Malacosoma americanum eastern tent caterpillar 69 161 171 183 196 219 246 275 300 471 Malacosoma californicum western tent caterpillar 124 231 234-235 465
Malacosoma californicum pluviale 203
Malacosoma disstria forest tent caterpillar 203 220 228 234 247 347 368 390
Maladera sp. a scarab 552

Mamestra brassicae cabbage moth 827
Mamestra configurata bertha armyworm
174

Manduca sp. a sphingid moth 468 513 567 620 646 672 703

Manduca quinquemaculata tomato hornworm 99 409 462 483 506 556 583 612 634 716. Light traps: 446 447 475 501 521 550 602 628 654 677 710 711 733 751 752 770 787 803 816

Manduca sexta tobacco hornworm 99 337 361 408-409 483 506 527 556 583 612 634 660 716. Light traps: 373 447 475 501 521 550 551 575 576 602 628 654 655 677 678 710 711 733 751 752 770 787 803

Mango weevil <u>Cryptorhynchus mangiferae</u> <u>Mansonia</u> spp. mosquitoes <u>254</u> <u>Mansonia</u> <u>perturbans</u> 443

Maple leafcutter <u>Paraclemensia</u> <u>aceri</u>foliella

Martyrhilda canella an oecophorid moth 520

 $\frac{\text{Maruca}}{860}$  testulalis bean pod borer 15 86

<u>Mayetiola destructor</u> Hessian fly 4 <u>122</u> 270 294 508 530 616 833 848 868

Meadow plant bug <u>Leptopterna dolabrata</u> Meadow spittlebug <u>Philaenus spumarius</u> Mediterranean fruit fly <u>Ceratitis cap</u>itata

Megachile rotundata alfalfa leafcutting bee 260 261 265

Megacyllene robiniae locust borer 237
Megalonotus chiragrus sabulicolus a
lygaeid bug 1/ 871 877

Megastigmus schimitscheki a torymid wasp 40

Megastigmus strobilobius 502

Megastigmus suspectus 16

Melanagromyza schineri a leafminer f

Melanagromyza schineri a leafminer fly

1/ Carried as Megalonotus sabulicola in error in Vol. 2.

Melanaspis bromeliae an armored scale Melanaspis tenebricosa gloomy scale 873 878 Melanophthalma distinguenda a lathridiid beetle 750 Melanoplus spp. grasshoppers 279 351 421 422 473 545 546 560 571 586 600 624 651 749 796 Melanoplus bivittatus twostriped grasshopper 324 351 370 394 422 444 445 473 498 546 572 616 624 625 640 675 697 768 801 814 836 Melanoplus dawsoni 572 624 625 Melanoplus devastator devastating grasshopper 706 Melanoplus differentialis differential grasshopper 351 370 422 473 498 546 571 586 588 589 600 615 616 617 624 625 640 675 697 768 801 813 814 836 Melanoplus femurrubrum redlegged grasshopper 394 422 445 473 498 546 572 615 616 624 625 639 640 675 697 741 814 836 Melanoplus marginatus 421 Melanoplus occidentalis 199 768 Melanoplus packardii Packard grasshopper 324 351 370 422 445 498 572 624 768 801 836 Melanoplus sanguinipes migratory grass-hopper 306 324 351 370 394 421 445 473 498 518 546 572 600 624 651 675 749 768 801 814 836 Melanotus communis a wireworm 119-120 Melipotis indomita a noctuid moth 417 Melissopus latiferreanus filbertworm Melittia cucurbitae squash vine borer 187 Meloe niger a meloid beetle 878 Melolontha melolontha a chafer 477 Melon aphid Aphis gossypii Melon fly Dacus cucurbitae Mermiria maculipennis maculipennis a grasshopper 422 768 Meromyza americana wheat stem maggot 122 339 434 833 848 869 Metamasius sp. a weevil 604 860 880 Meteorus laphygmae a braconid wasp 594 Meteorus pulchricornis 260 262 Mexican bean beetle Epilachna varives-Mexican fruit fly Anastrepha ludens

Microctonus aethiopoides a braconid wasp 8 13 25-26 260 262 323 623 626 840-842 Microctonus colesi 25-26 840-842 Microlarinus Tareynii puncturevine seed weevil 8-9 13 21 52 54 260 261 Microlarinus lypriformis puncturevine stem weevil 9 14 260 261 785 786 855 Microtheca ochroloma yellowmargined leaf beetle 594 601 Migratory grasshopper Melanoplus sanguinipes Mimosa webworm Homadaula anisocentra Mindarus abietinus balsam twig aphid 197 303 347 389 Mining scale Howardia biclavis Molorchus sp. a cerambycid beetle 310 Monarthrum fasciatum a scolytid beetle 304 Monellia spp. 207 219 Monellia costalis blackmargined aphid 206 301 346 Monelliopsis nigropunctata an aphid 206 301 346 Monkeypod moth Polydesma umbricola Monochamus sp. a cerambycid beetle 107 Monomorium pharaonis pharaoh ant 184 185 Monosteira unicostata almond bug 860 Mordellistena sp. a mordellid beetle Mormon cricket Anabrus simplex
Mosquitoes 221 248 277 305 348 369 391 420 443 472 539 570 648 674 785 Mountain ash sawfly Pristiphora geniculata Mountain pine beetle Dendroctonus ponderosae Mourningcloak butterfly Nymphalis antiopa Mulberry whitefly Tetraleurodes mori Musca autumnalis face fly 84 198 221 250 253 255-256 277 304 348 368 390-391 395 420 425 442 471 493 517-518 520 539 596 623 648 674 706 730 732 748-749 750 785 Musca domestica house fly 801 Myiopardalis pardalina Baluchistan melon fly 656 Myrmecocystus hammettensis an ant 71 Myzocallis boerneri an aphid 304

Myzus cerasi black cherry aphid 204

Myzus ligustri privet aphid 75

Myzus persicae green peach aphid 37 62 83 84 161 164 171 174 175- 176 195 204 217 301 415 489 513 514 536 703

#### SLUGS & SNAILS

Monacha carthusiana a helicid snail

Monacha olivieri 426

#### WEEDS

Musk thistle Carduus nutans

#### DISEASES

Nigrospora sp. an ear rot 808 Nigrospora oryzae cob rob 821 832 845 846 847 858 Northern leaf blight Helminthosporium turcicum

#### INSECTS

Nantucket pine tip moth Rhyacionia frustrana Nasutitermes sp. a termite 107 Native elm bark beetle Hylurgopinus Navel orangeworm Paramyelois transitella Nematodes atropos an eucnemid beetle Nematus chalceus a sawfly 784 Neodiprion sertifer European pine sawfly 247 276 302 368 Neodiprion taedae linearis loblolly pine sawfly 302 Neoleucinodes elegantalis a pyralid moth 734 Neotermes sp. a termite 201 Nesothrips brevicollis a thrips 18

Nezara viridula southern green stink bug 782 835 Nicentrites testaceipes a weevil 1/ 880 Oebalus pugnax rice stink bug 271 696 Nicentrus testaceus a weevil See Nicentrites testaceipes 1/

Neurocolpus nubilis clouded plant bug

1/ Carried as Nicentrus testaceus in Vol. 2.

Nipaecoccus nipae coconut mealybug 621 Nomia melanderi alkali bee 675 Northern cattle grub Hypoderma bovis Northern corn rootworm Diabrotica longicornis Northern fowl mite Ornithonyssus sylviarum

Northern house mosquito Culex pipiens Norway maple aphid Periphyllus **Ivropictus** Nose bot fly Gasterophilus haemorrhoidalis Nymphalis antiopa mourningcloak butter1v 622 626 Nysius sp. a lygaeid bug 719 Nysius ericae false chinch bug 561 Nysius huttoni 502 Nysius raphanus 871



#### DISEASES

Oat wilt Ceratocystis fagacearum Oat crown rust Puccinia coronata var. avenae Oat cyst nematode Heterodera avenae Oat loose smut Ustilago avenae Oat stem rust Puccinia graminis f.sp.

avenae INSECTS Oak leaftier Croesia albicomana Oak lecanium Lecanium quercifex Oberea bimaculata raspberry cane borer Obliquebanded leafroller Choristoneura rosaceana Octotoma plicatula a chrysomelid beetle 22 Odonaspis penicillata an armored scale Odontaleyrodes rhododendri a whitefly Odontota dorsalis locust leafminer 237 517 539 648 853 857 Oedaleonotus enigma enigma a grasshopper 279 Oedaleus abruptus small bandedwing

grasshopper 656 Oestrus ovis sheep bot fly 258 874

Old house borer Hylotrupes bajulus Oleander hawk moth Deilephila nerii Oleander scale Aspidiotus nerii

Oligonychus ilicis southern red mite 210 570 Oligonychus pratensis Banks grass mite 108 121 639 653 665 695-696 Oligonychus ununguis spruce spider mite 226 227 347 538 Oligotrophus betulae a gall midge 186 Omnivorous leaftier Cnephasia longana Omphisa anastomosalis sweetpotato vine borer 186 445 604 Oncocnemis punctilinea (a noctuid moth 236 Onion maggot Hylemya antiqua Onion plant bug Labopidea allii Onion thrips Thrips tabaci Opencyrtus chrysopae an encyrtid wasp 18 52 54 Opeia obscura a grasshopper 444 Operophtera brumata winter moth 16 Ophiomyia phaseoli bean fly 371 Opius dimidiatus a braconid wasp 8 Opogona sp. a lyonetiid moth 252 Orangestriped oakworm Anisota senatoria Orchamoplatus mammaeferus a whitefly 12 18 70 474 594 652 771 880 Orchidophilus aterrimus orchid weevil 712 814 837 Orchidophilus peregrinator 837
Orchid weevil Orchidophilus aterrimus Orgyia pseudotsugata Douglas-fir tussock moth 229 Orgyia vetusta western tussock moth Oriental fruit fly Dacus dorsalis Oriental fruit moth Grapholitha molesta Orius persequens an anthocorid bug Ornithonyssus sylviarum nothern fowl mite 69 253 259 Orthemis ferruginea a libellulid dragonfly 856 857 Orthotomicus erosus a scolytid beetle 16 163 282 753 Orthotylus nassatus a European plant bug 605-608 Oryzaephilus surinamensis sawtoothed grain beetle 730 854 Ostrinia nubilalis European corn borer 3 41-48 108-111 159 169 174 181 192 214 270 274 293 315 338 362 365 375 376 381-382 409-410 431-432 463 483 485 489 507 508 514 527-528 558 584

613-614 621 636 637 646 660 662-663 694 703 718 728 740 747 760 777-778

#### SLUGS & SNAILS

 $\begin{array}{c} \underline{\text{Otala}} \\ \underline{\text{Otala}} \\ \underline{\text{Otala}} \\ \underline{\text{Otala}} \\ \end{array} \begin{array}{c} \text{sp. a helicid snail 107 328} \\ \underline{\text{lactea}} \\ \underline{\text{604}} \\ \underline{\text{vermiculata}} \\ \end{array} \begin{array}{c} \text{630 679 839} \\ \end{array}$ 

#### WEEDS

# P

#### DISEASES

Pallescens leaf spot <u>Curvularia pallescens</u>
Papaw mosaic virus 351
Peach phony virus 202
Peach yellow leaf roll virus 767
Peanut stunt virus 164
Pecan downy spot <u>Mycosphaerella caryigena</u>
Pelargonium rust <u>Puccinia pelargoniizonalis</u>
Pellicularia <u>filamentosa</u> See
Rhizoctonia <u>solani</u>
Penicillium spp. penicillium ear rots
693 718 759 777 792 793 808 815 821
846 858

Peronospora manshurica soybean downy mildew 563 589 618 641 667 698 721 743 762 797 810 815 823

Peronospora trifoliorum alfalfa downy mildew 295 317 412

Phaeocryptopus gaumanni Swiss needlecast 853

Phakopsora gossypii 163

Phakopsora pachyrhizi soybean rust Phaseoli bean blight Xanthomonas phaseoli

Phaseolicola halo blight Pseudomonas phaseolicola

Phialophora gregata brown stem rot 617 699 721 744 763 797 811 815 823 851

Phleospora pistaciae a fungus 879 Phoma cryptomeriae cryptomeria needle blight 18

Phoma medicaginis spring black stem 193 243 295-296 316-317

Phomopsis sp. a fungus 355

Phomopsis juniperovora juniperovora twig blight 226

Phomopsis orchidophila a fungus 355 Phyllosticta sp. a leaf spot 107 Phyllosticta leaf spot Phyllosticta sojaecola

Phyllosticta sojaecola phyllosticta leaf spot 641 667

Phyllostictina musarum a fungus 656 Physoderma alfalfae alfalfa crown wart

Physoderma maydis corn brown spot 557

Phytophthora infestans potato and tomato late blight 621

Phytophthora megasperma phytophthora root rot 563 618

Phytophthora megasperma var. sojae phytophthora root and stem rot 627 641 642 698 722 744 763

Phytophthora phaseoli lima bean downy mildew 836

Phytophthora root rot Phytophthora megasperma

Phytophthora root and stem rot Phytophthora megasperma var. sojae Pine tip blight <u>Diplodia</u> pinea Pitch canker 229
Podosphaera leucotricha apple (leuco-

tricha) powdery mildew 219 Potato and tomato late blight

Phytophthora infestans

Potato cyst nematode Globodera pallida

Potato virus Y 164

Pratylenchus sp. a root lesion nematode 294

<u>Pseudomonas</u> <u>andropogoni</u> bacterial stripe 507 613 662 693 740

Pseudomonas coronafaciens coronafacien halo blight 561 587

Pseudomonas glycinea soybean bacterial blight 434 510 532 562 588 618 642 667 699 722 744 764 798 815

Pseudomonas phaseolicola phaseolicola halo blight 568

Pseudomonas syringae wheat leaf necrosis 315 506 527 557 613 636 Pseudomonas tabaci wildfire 722
Pseudomonas tomato tomato bacterial speck 416

Pseudopeziza medicaginis common leaf spot 296

Puccinia aeluropotis a rust 827 Puccinia asparagi asparagus rust 568 Puccinia chondrillina skeletonweed rust 9 286 423

Puccinia chrysanthemi common chrysanthemum rust 812

Puccinia coronata var. avenae oat crown rust 383 485 530 561 586 627 639 666 822 833 847

Puccinia graminis black stem rust 496

Puccinia graminis f.sp. avenae oat stem rust 383 496 544 571 597-598 624 649 651 675 824 836

Puccinia graminis f.sp. secalis rye stem rust 496 544

Puccinia graminis f.sp. tritici barley tritici stem rust 1/ 383 392 444 496-497 500 518 544-545 598-599 675

Puccinia graminis f.sp. tritici wheat stem rust 650 651 801

Puccinia hordei barley leaf rust 485

Puccinia horiana white chrysanthemum rust 15 137 477 812 815 823 825 879 Puccinia pelargonii-zonalis pelargonium rust 201

Puccinia pitcairniae pitcairniae a rust 173

Puccinia purpurea sorghum leaf rust 692 791

<u>Puccinia</u> <u>recondita</u> wheat leaf rust 339 383-384 433 484-485 530 561 587 616 665 794 822 833 847

1/ Carried as barley stem rust in Vol. 2.

Puccinia sorghi common maize rust 108 431 507 527 557 583 612-613 634-635 661 691 716 738-739 758 791 807 815 Puccinia striiformis wheat stripe rust 383 485 Puccinia tillandsiae 64 282 753 Pucciniastrum areolatum 73

Pyrenophora teres barley net blotch 315 362 Pyrenophora trichostoma eyespot 315 338 384 433 530 560 615

#### INSECTS

Pacific Coast tick Dermacentor occidentalis Pacific spider mite Tetranychus pacificus Packard grasshopper Melanoplus

packardii Painted lady Vanessa cardui

Palaeocorynus sp. a weevil 225 Palaeopus sp. a weevil 477

Palexorista inconspicua a tachinid fly 260 265

Painted leafhopper Endria inimica Paleacrita vernata spring cankerworm 69 135 172 197 247 303 347 368 Pales weevil Hylobius pales Pale western cutworm Agrotis orthogonia

Pandesma anysa a noctuid moth 548 549 Panonychus citri citrus red mite 196

207 220 322

Panonychus ulmi European red mite 205 246 261 275 301 320 346 440 441 470 491 496 538 595 622 647 728 748 Papaipema nebris stalk borer 108 114

Paraclemensia acerifoliella maple leafcutter 235

Paracryptocerus pusillus an ant 477 Paraleyrodes naranjae 22 53 54 199

Paraleyrodes perseae plumeria whitefly 199 200

Parallelodiplosis cattleyae a midge

Paralobesia viteana grape berry moth 207 208 596

Paramyelois transitella navel orangeworm 161 538

Paraprociphilus tessellatus woolly alder aphid 238

Paraterellia ypsilon a fruit fly 601

Paratrioza cockerelli potato psyllid 380 431 691

Parlatoria blanchardi parlatoria date scale 552 627 771

Parlatoria crypta an armored scale 880 Parlatoria date scale Parlatoria blanchardi

Parlatoria fluggeae 222 223 Parlatoria proteus 729

Pea aphid Acyrthosiphon pisum Peachtree borer <u>Sanninoidea exitiosa</u> Peach twig borer <u>Anarsia lineatella</u> Pea leaf weevil <u>Sitona lineatus</u>

Pearleaf blister mite Phytoptus pyri

Pear psylla Psylla pyricola Pear sawfly Caliroa cerasi Pea weevil Bruchus pisorum

Pecan leaf phylloxera Phylloxera notabilis

Pecan nut casebearer Acrobasis nuxvorella

Pecan plylloxera Phylloxera devastatrix

Pecan spittlebug Clastoptera achatina Pecan weevil Curculio caryae

Pectinophora gossypiella pink bollworm 285 572 600 749 814 855

Pediasia teterrella bluegrass webworm 696

 $\frac{\text{Pediasia}}{125} \frac{\text{trisecta}}{779}$  a sod webworm  $\frac{1}{2}$ 

Pediculus humanus capitis head louse

Pediobius foveolatus a eulophid wasp 148 260 264 319 323 416 473 514 533

Pegomya betae See Pegomya hyoscyami Pegomya hyoscyami spinach leafminer 187 818

Penthaleus major winter grain mite 4 37 51 67 103 123 134 170 181 193 869 Pepper weevil Anthonomus eugenii Peregrinus maidis corn planthopper 280 371 474 515

Peridroma saucia variegated cutworm 174 183 272-273 294 297-298 318 319 337 339 341 344 361 364 381 385 413 468 514 536 537 559 562 564 567 568 587 590 593-594 617 695 697 703. Light traps: 106 152 162 178 185 200 224 251 281 309 326-327 353 373 396

1/ Also carried as Crambus trisectus in Vol. 2.

Pieris rapae imported cabbageworm 424 446 447 475 476 501 521 550 551 104 174 175 178 218 300 319-320 474 575 576 602 603 628 629 654 655 677 678 710 711 733 751 752 770 787 803 852 816 826 838 849 876 Pigeon fly Pseudolynchia canariensis Perilitus coccinellae a braconid wasp Pine colaspis Colaspis pini 261 262 473 813 815 Pine needle scale Chionaspis pini-Periphyllus aceris 604
Periphyllus lyropictus Norway maple aphid 238 493 foliae Pine spittlebug Aphrophora parallela Pine tortoise scale Toumeyella Petrobia latens brown wheat mite 59 67 74 83 123 134 147 160 170 181 183 188 192-193 195 200 215 242 271 parvicornis Pineus pini Eurasian pine adelgid 796 856 876 316 414 869 Pink bollworm Pectinophora gossypiella Phaneroptera furcifera Philippine Pink scavenger caterpillar Sathrobrota katvdid 425 rilevi Pinkstriped oakworm Anisota virginien-Pharoscymnus sp. a lady beetle 786 Pharoah ant Monomorium pharaonis sis Philaenus spumarius meadow spittlebug 136 144 195 200 209 217 245 273 299 317 318 343 362 364 389 Pinnaspis aspidistrae fern scale 6 492 873 877 Pissodes sp. 201 310 Philippine katydid Phaneroptera fur-Pissodes notatus banded pine weevil cifera Philothalpus analis a staphylinid Pissodes pini 16 beetle 786 Pissodes strobi white pine weevil 276 Phlegetonia delatrix a noctuid moth 347 367 876 Pityogenes chalcographus a scolytid beetle 40 Phlibostroma quadrimaculatum a grasshopper 422 768 Pityophthorus scriptor a scoytid beetle 824 825 Phloeosinus sp. a scolytid beetle 230 Phloeosinus sp. possibly perlatus 502 Placosternus sp. a cerambycid beetle Phloeosinus rudis 186 282 Phoetaliotes nebrascensis a grass-Plagiodera arizonae a chrysomelid hopper 444 beetle 596 Phormia regina black blow fly 304 Planococcus citri citrus mealybug Phryganidia californica California oakworm 442 6 70 419 425 Plathypena scabra green cloverworm 194 217 244 273 298 435 486 509 510 531 Phryxe pecosensis a tachinid fly 622 Phthorimaea operculella potato tuber-worm 174 175 532 536 564 589 594 617 619 642 643 666 668 669 699-700 720 723 744-745 Phyllocoptruta oleivora citrus rust 764 796 799 807 834 mite 207 Platynota stultana a tortricid moth Phyllotreta cruciferae a chrysomelid 208 301 595 beetle 345 417 515 Platyphytoptus sabinianae an eriophyid Phylloxera devastatrix pecan phylmite 6 loxera 202 206 321 346 352 366 Phylloxera notabilis pecan leaf phylloxera 219 247 Platyptilia pica pica a plume moth 347 Plemeliella abietina a gall midge 282 Plodia interpunctella Indian meal moth 259 674 Phytocoptella avellanae filbert bud mite 59 Plum curculio Conotrachelus nenuphar Plumeria whitefly <u>Paraleyrodes</u> perseae Plum fruit moth <u>Grapholitha</u> funebrana Phytomyza vomitoriae a leafminer fly

Phytoptus pyri pearleaf blister mite

Pieris brassicae large white butterfly

Phytoseiulus woodburyi 18

16 734

Plum gouger Coccotorus scutellaris Plutella xylostella diamondback moth 174 175 178 249 274 371 474 515 548 Podisus maculiventris spined soldier bug 184 Podosesia syringae lilac borer 236 Polydesma umbricola monkeypod moth 417 Polygraphus poligraphus a bark beetle 173 448 Polyphagotarsonemus latus broad mite 136 395 573 594 786 875 Popillia japonica Japanese beetle 248 279 370 394 422 445 474 498-499 519 547 549 572 582 625 651 676 749 855 Poplar tentmaker Ichthyura inclusa Potato aphid Macrosiphum euphorbiae Potato leafhopper Empoasca fabae Potato psyllid Paratrioza cockerelli Potato tuberworm Phthorimaea operculella Premnotrypes sp. a weevil 282 Pristiphora erichsonii larch sawfly 233 389 Pristiphora geniculata mountain ash sawfly 237 Privet aphid Myzus ligustri Procecidochares alani a tephritid fly 12 652 876 Prosimulium spp. black flies 258 277 Prosimulium fuscum 348 472 Prosimulium mixtum 277 305 348 472 Prospalta dolorosa a noctuid moth 707 Prospaltella opulenta a eulophid wasp Pseudaletia unipuncta armyworm 1/87 88 90-91 169 181 191 213 269 291 313 335 336 359-360 379 407 429 461 481 505 525 532 555 559 563 594 611 715 737 738 764. Light traps: 106 152 161 185 200 224 251 281 309 326-327 353 354 373 396 424 446 447 475 476 501 521 550 551 575 576 602 603 628 629 654 655 677 678 710 711 733 751 752 770 787 803 816 826 838 849 876 Pseudaonidia duplex an armored scale Pseudaonidia paeoniae 22 Pseudaonidia trilobitiformis 712 Pseudatomoscelis seriatus cotton fleahopper 152 319 344 387 415 438 467 489 513 535 566 Pseudaulacaspis cockerelli an armored

1/ Carried as <u>Cirphis unipuncta</u> in error in Vol. 2.

scale 227 419 729 872 877

Pseudaulacaspis pentagona white peach scale 204 673 676 871 873 878 Pseudobaris nigrina a weevil 468 469 Pseudocneorhinus bifasciatus a Japanese weevil 22 Pseudococcus n.sp. 856 857 Pseudococcus comstocki comstock mealy bug 9 278 324 Pseudococcus longispinus longtailed mealybug 6 Pseudococcus obscurus 573
Pseudococcus sorghiellus 68 72
Pseudolynchia canariensis pigeon fly Pseudomyrmex gracilis mexicanus an ant 22 671 Pseudoparlatoria ostreata an armored scale 569 Pseudoparlatoria parlatorioides 853 871 877 Pseudoplusia includens soybean looper 643 669 723 745 764 782 799 812 Psila rosae carrot rust fly 187 Psorophora spp. mosquitoes 254 Psychomorpha epimenis a noctuid moth 388 Psylla pyricola pear psylla 22 55 161 183 202 203-204 320 352 366 388 440 491 595 605 728 871 Pulvinaria acericola a soft scale 516 Pulvinaria ericicola 22 Pulvinaria innumerabilis cottony mapl scale 323 Puncturevine seed weevil Microlarinus lareynii Puncturevine stem weevil Microlarinus lypriformis Puto barberi a mealybug 310 Pycnotomina cavicolle a rhizophagid beetle 549 Pygmephorus primitivus a pygmephorid mite 18 Pyrrhalta luteola elm leaf beetle 84 220 236-237 276 303 323 348 442 492 784 Pyrrhidium sanguineum a cerambycid beetle 448

WEEDS

Panicum miliaceum proso millet 382 514 Proso millet Panicum miliaceum DISEASES

Quince rust Gymnosporangium clavipes

INSECTS

<u>Quadraspidiotus</u> <u>juglansregiae</u> walnut scale 853 858

<u>Quadraspidiotus ostreaeformis</u> European fruit scale 104 106

<u>Quadraspidiotus perniciosus</u> San Jose scale 5 196 <u>202</u> <u>204</u> 852 858

R

#### DISEASES

Radopholus similis burrowing nematode Ramulispora sorghi sooty stripe 613 636 662 792 Red ear rot Gibberella (Fusarium) roseum f.sp. cerealis Rhabdocline needle blight Rhabdocline pseudotsugae Rhabdocline pseudotsugae rhabdocline needle blight 230 Rhizoctonia sp. 812 Rhizoctonia root and stem rot Rhizoctonia solani Rhizoctonia solani rhizoctonia root and stem rot 1/588 618 627 781 Rickettsia rickettsi Rocky Mountain spotted fever 277 253 259 648 Rocky Mountain spotted fever Rickettsia rickettsi A root rot 176 177 Roseum rot Gibberella (Fusarium) roseum f.sp. cerealis Rye stem rust Puccinia graminis f.sp. secalis

#### INSECTS

Raisin moth <u>Cadra figulilella</u>

1/ Carried as Pellicularia filamentosa
 filamentosa root and stem rot, pel licularia root and stem rot and
 Thanatephorus cucumeris
 thanatephorus root and stem rot,
 cucumeris rot in Vol. 2.

Raspberry cane borer Oberea bimaculat Redbacked cutworm Euxoa ochrogaster Redbanded leafroller Argyrotaenia velutinana Red imported fire ant Solenopsis invicta Redlegged grasshopper Melanoplus femurrubrum Rednecked peanutworm Stegasta bosqueella Resseliella sp. a cecidomyiid fly 656 Reticulitermes flavipes eastern subterranean termite 172 184 259 Reticulitermes hesperus western subterranean termite 874 Rhagoletis alternata a tephritid fly Rhagoletis cerasi European cherry fruit fly 604 788 Rhagoletis cingulata cherry fruit fly Rhagoletis completa walnut husk fly 207 538 595 647 Rhagoletis fausta black cherry fruit flv 440 Rhagoletis indifferens western cherry fruit fly 205 388 440 516 538 Rhagoletis mendax blueberry maggot Rhagoletis pomonella apple maggot 202 205 470 491 516 538 595 Rhinocyllus conicus a weevil 261 349 392 444 571 Rhipicephalus sanguineus brown dog tick 84 184 259 Rhizaspidiotus dearnessi an armored scale 6 13 Rhizoecus americanus a mealybug 441 Rhizoecus floridanus 22 Rhizotrogus solstitialis summer chafe Rhododendron borer Synanthedon rhododendri Rhopalosiphoninus latysiphon 75-77 79 105 106 Rhopalosiphoninus kelleri an aphid 75-78 80 Rhopalosiphoninus solani 75 76 78 Rhopalosiphoninus staphyleae 75 76 78 Rhopalosiphoninus staphyleae tulipaellus 75 76 78 Rhopalosiphum maidis corn leaf aphid 87 94 96 120 169 261 292 336 379 408 420 430 462 481-482 505-506 526 556

Range caterpillar Hemileuca oliviae

Rhopalosiphum padi 4 51 59 67 83 95 122 123 133 159 162 170 192 214 242 294 305 380 434 465 482 506 848 869 Rhyacionia buoliana European pine shoot moth 232 276 347 367 516-517 520 570 574 Rhyacionia frustrana Nantucket pine tip moth 135 276 302 347 873 Rhynchaenus fagi a weevil 374 Rhyncolus porcatus a weevil 225 Rice stalk borer Chilo plejadellus Rice stink bug Oebalus pugnax Rice water weevil Lissorhoptrus oryzophilus Rosy apple aphid Dysaphis plantaginea Roundheaded appletree borer Saperda candida

#### SLUGS & SNAILS

Rumina decollata a subulinid snail 22 367 372

### WEEDS

Rush skeletonweed Chondrilla juncea

# 5

#### DISEASES

Scleroderris canker Gremmeniella abietina Scleroderris lagerbergii See Gremmeniella abietina Sclerophthora macrospora grass downy mildew 339 Sclerotinia crown and stem rot Sclerotinia sclerotiorum Sclerotinia sclerotiorum sclerotinia crown and stem rot 243 317 Sclerotinia sclerotiorum sclerotiorum blight 802 Sclerotinia sclerotiorum sclerotiorum rot 722 744 Sclerotinia trifoliorum See Sclerotinia sclerotiorum Sclerotiorum blight Sclerotina sclerotiorum Sclerotiorum rot Sclerotinia sclerotiorum Seed purple stain Cercospora kikuchii Septoria glycines soybean brown spot 563 588 617 640-641 667 697-698 721 742-743 762 797 802 810 815

Septoria leaf spot Septoria lycopersici Septoria lycopersici septoria leaf spot 514 Septoria tritici speckled leaf blotch 242 293 315-316 338 384 848 Shoestring root rot Armillaria mellea Skeletonweed rust Puccinia chondrillina Smooth-spored bunt Tilletia foetida Soil-borne wheat mosaic virus 133 170 192 384 696 708 Sooty stripe Ramulispora sorghi Sorghum bacterial streak Xanthomonas Sorghum leaf rust Puccinia purpurea Southern leaf blight Helminthosporium maydis Southwestern dwarfmistletoe Arceuthobium vaginatum f. cryptopodum Soybean bacterial blight Pseudomonas glycinea Soybean brown spot Septoria glycines Soybean cyst nematode Heterodera glycines Soybean downy mildew Peronospora manshurica Soybean (glycines) anthracnose Glomerella glycines Soybean mosaic virus 589 642 668 699 723 744 811 851 618 Soybean pod and stem blight Diaporthe phaseolorum var. sojae Soybean rust Phakopsora pachyrhizi Soybean stem canker Diaporthe phaseolorum var. caulivora Soybean (truncata) anthracnose Colletotrichum dematium var. truncata Speckled leaf blotch Septoria tritici Sphaceloma punicae a fungus 73 Sphenospora kevorkianii a rust 753 Spring black stem Phoma medicaginis St. Louis encephalomyelitis virus 674 730 784 Stewart's wilt Erwinia stewartii Stigmina obtecta a fungus 477 Stone fruit bacterial spot Xanthomonas pruni Sugar beet nematode Heterodera schachtii Sugar maple decline cause unknown 229 Summer black stem <u>Cercospora</u> zebrina Sweet orange scab Elsinoe australis Swiss needlecast Phaeocryptopus gaumanni Sycamore anthracnose Gnomonia platani

INSECTS Saddled prominent Heterocampa guttivitta Saissetia coffeae hemispherical scale 5 419 873 878 Saltmarsh caterpillar Estigmene Saltmarsh mosquito Aedes sollicitans Sandhill cutworm Euxoa detersa San Jose scale Quadraspidiotus perniciosus Sanninoidea exitiosa peachtree borer 202 203 440 Saperda sp. a cerambycid beetle 107 Saperda candida roundheaded appletree borer 301 Saperda scalaris 656 Sardia pluto a delphacid planthopper Sathrobrota rileyi pink scavenger caterpillar 778 Satin moth Leucoma salicis Sawtoothed grain beetle Oryzaephilus surinamensis Scaphoideus densus a leafhopper 22 Scaphoideus incisus 22 Scaphoideus opalinus 22 Schedorhinotermes sp. a termite 860 Schizaphis graminum greenbug 3 37 51 59 67 83 87 94-97 103 120 122 133 135 159 169 181 191-192 213 241 261 262 269 292 305 314 336 349 360 369 380 408 430 462 482 506 526 527 543 556 571 581-582 611 612 634 649 660 675 690 758 775 831 845 867-868 Scirtes sp. a helodid beetle 23 Scirtothrips citri citrus thrips 207 Scolytus intricatus a scolytid beetle 771 Scolytus multistriatus smaller European elm bark beetle 54 62 85 222 236 247 279 324 350 368 372 492 673 676 Scolytus rugulosus shothole borer 183 388 Scotothrips claripennis a thrips 18 Screwworm Cochliomyia hominivorax Scutigerella immaculata garden symphy-1an 363 Scyphophorus acupunctatus a weevil 23 Scyphophorus yuccae 37 38

Seedcorn maggot Hylemya platura

386 436

201

Sericothrips variabilis soybean thrips

Sesamia nonagrioides a noctuid moth

Sheep bot fly Oestrus ovis Shirahoshizo sp. a weevil 64 163 Shirahoshizo insidiosus 201 Shortnosed cattle louse Haematopinus eurysternus Shothole borer Scolytus rugulosus Silba virescens a lonchaeid fly 630 Silverspotted tiger moth Halisidota argentata Silver-Y moth Autographa gamma Simulium spp. black flies 258 Simulium venustum 305 348 391 472 Simulium vittatum 258 Sipalus gigas a weevil 56 186 397 Sipha flava yellow sugarcane aphid 96 108 120 192 270 382 464 611 Sirex sp. a siricid wasp 355 Sirex noctilio 522 712 Sitona cylindricollis sweetclover weevil 297 Sitona hispidulus clover root curculio 486 Sitona lineatus pea leaf weevil 176 177 217 Sitotroga cerealella Angoumois grain moth 493 Sixspotted mite Eotetranychus sexmaculatus Small bandedwing grasshopper Oedaleus abruptus Smaller European elm bark beetle Scolytus multistriatus Solanaceous treehopper Antianthe expansa Solenopsis invicta (red imported fire ant 10 172 222 223 283 307 321 325 855 Solenopsis richteri black imported fire ant 283 Solitary oak leafminer (Cameraria hamadryadella Sorghum midge Contarinia sorghicola Sorghum webworm Celama sorghiella Southern armyworm Spodoptera eridania Southern chinch bug Blissus insularis Southern corn rootworm Diabrotica undecimpunctata howardi Southern garden leafhopper Empoasca solana Southern green stink bug Nezara viridula Southern masked chafer Cyclocephala immaculata

Southern pine beetle Dendroctonus frontalis Southern potato wireworm Conoderus Southern red mite Oligonychus ilicis Southwestern corn borer Diatraea grandiosella Soybean looper Pseudoplusia includens Soybean thrips Sericothrips variabilis Spaelotis clandestina w-marked cutworm 23 Spangbergiella quadripunctata a leafhopper 53 54 Sparganothis sulfureana a tortricid moth 208 Spharagemon collare a grasshopper Sphenophorus callosus a weevil 108 119 169 315 362 508 Sphenophorus cicatristriatus 23 Sphenophorus maidis maize billbug 108 119 293 315 362 Sphenophorus parvulus bluegrass billbug 125 271 465 795 Sphenophorus phoeniciensis 848 Sphenophorus venatus venatus 720 732 Sphenophorus zeae 119 Spider mite destroyer Stethorus picipes Spinach leafminer Pegomya hyoscyami Spined soldier bug Podisus maculiventris Spiny bollworm Earias insulana Spissistilus festinus threecornered alfalfa hopper 299 487 509 564 589 721 851 Spodoptera eridania southern armyworm 584 590 Spodoptera exigua beet armyworm 12 108 112 113 164 174 270 299 336 344 365 436 437 439 466 468 487 499 510 511 525 532 533 563 564 566 581 584 589 590 593 617 618 619 633 639 640 643 645 659 669 690 694 696 697 700 702 704 715 723 727 737 738 745 764 765 783 795 800. Light traps: 152 162 185 200 224 251 281 326 353 373 396 424 446 475 501 521 550 575 602 628 654 677 710 733 751 770 787 803 816 826 838 849 876

Stephanitis pyrioides azalea lace bug
12 23
Stephanopachys sp. a bostrichid beetle
753
Stephanopachys quadricollis 397

Stephanopachys quadricollis 397
Stethorus picipes spider mite destroyer 260 261
Stomovys calcitrans stable fly 198

Stomoxys calcitrans stable fly 198 253 257 304 442 623 674 749 Strawberry crown moth Synanthedon bibionipennis

Strawberry root weevil Otiorhynchus

ovatus

Strawberry spider mite <u>Tetranychus</u> turkestani

Strawberry weevil Anthonomus signatus
Striped cucumber beetle Acalymma
vittata

Striped horse fly <u>Tabanus</u> <u>lineola</u>
Striped mealybug <u>Ferrisia</u> <u>virgata</u>
Sugarbeet root maggot <u>Tetanops</u>
myopaeformis

Sugarcane beetle <u>Euetheola rugiceps</u>
Sugarcane borer <u>Diatraea saccharalis</u>
<u>Suleima helianthana</u> an olethreutid

moth 438 567

Summer chafer <a href="Rhizotrogus">Rhizotrogus</a> solstitialis

Sunflower beetle Zygogramma exclamationis

Sunflower moth Homoeosoma electellum Supella longipalpa brownbanded

cockroach 27 Sweetclover weevil <u>Sitona</u> cylindri-

<u>collis</u> Sweetpotato leafminer <u>Bedellia</u>

Orchilella Sweetpotato vine borer Omphisa

anastomosalis Sweetpotato weevil <u>Cylas</u> formicarius elegantulus

Symmerista spp. notodontid moths 234
Synanthedon bibionipennis strawberry
crown moth 207 208

Synanthedon pictipes borer 202 203 366
Synanthedos 203 366

<u>Synanthedon</u> <u>rhododendri</u> rhododendron borer 23

<u>Synanthedon</u> <u>tipuliformis</u> currant borer 418

Syndyas polita an empidid fly 813 815

Syrbula admirabilis a grasshopper 422 498 768

<u>Syrmococcus</u> <u>spirapunctus</u> a mealybug

Systena frontalis a chrysomelid beetle 508 724
Systena marginalis 492

#### SLUGS & SNAILS

Succinea horticola a succincid snail 577

#### WEEDS

Scotch thistle <u>Onopordum</u> <u>acanthium</u>
Shrub nightshade <u>Solanum</u> <u>robustum</u>
Solanum <u>carolinense</u> horsenettle 837
Solanum <u>robustum</u> shrub nightshade
765 769
Spikeweed Centromadia nungens

Spikeweed <u>Centromadia pungens</u>
Spotted knapweed <u>Centaurea maculosa</u>
<u>Striga lutea witchweed 286</u>

DISEASES Take-all Gaeumannomyces graminis var. tritici Target spot Corynespora cassiicola Tenuissima leaf spot Alternaria tenuissima Thecaphora solani a fungus 56 Thielaviopsis basicola thielaviopsis root rot 1/563 Thielaviopsis root rot Thielaviopsis basicola Tilletia foetida smooth-spored bunt Tingens branch and trunk canker Atropellis tingens Tobacco etch virus 164 Tobacco ringspot virus 699 723 744 764 781 811 823 851 858 Tobacco vein-mottling virus 164 Tomato bacterial speck Pseudomonas tomato Trichodorus porosus a stubby-root nematode 171 Tylenchorhynchus sp. a stylet nematode 294

1/ Carried as black root rot in Vol.
2.

#### INSECTS

Tabanus aar a tabanid fly 887 889 Tabanus atratus fulvopilosus 889 Tabanus atratus nantuckensis 887 Tabanus calens 889
Tabanus fulvulus 889 mite 569 Tabanus gladiator 889 Tabanus lineola striped horse fly 887 889 Tabanus maculipennis 443 Tabanus melanocerus 889 Tabanus molestus molestus 889
Tabanus mularis 890
Tabanus nigrescens 889 Tabanus nigrovittatus 887 889 890 Tabanus petiolatus 890 Tabanus productus 570 Tabanus pumilus 890 Tabanus punctifer 570 Tabanus quinquevittatus 785 786 887 890 Tabanus sackeni 890 Tabanus sparus probably milleri 890 Tabanus subsimilis 1/887 890
Tabanus subsimilis subsimilis See
Tabanus subsimilis
Tabanus subcifrons 887 890 Tabanus turbidus 890 Taeniothrips eucharii 734 Taeniothrips simplex gladiolus thrips 226 227 474 Taniva albolineana spruce needleminer 220 347 Taphrorychus sp. a scolytid beetle Taphrorychus villifrons 839 Tarnished plant bug Lygus line-Tea scale Fiorinia theae Terrapin scale Lecanium nigrofasciatum Tessellated scale Eucalymnatus tessellatus Tetanops myopaeformis sugarbeet root maggot 812 Tetraleurodes mori mulberry whitefly Tetraleurodes perileuca 492 Tetraleurodes ursorum 470 Tetranychus spp. 149 lata

1/ Carried as Tabanus subsimilis subsimilis 7.

Tetranychus cinnabarinus carmine spider mite 11 70 136 325 395 515 573 621 652 671 814 822 825 856 875 Tetranychus cocosi 161
Tetranychus evansi 621 626 Tetranychus mcdanieli McDaniel spider Tetranychus pacificus Pacific spider mite 302 441 Tetranychus turkestani strawberry spider mite 386 Tetranychus urticae twospotted spider mite 108 120-121 147 148 149 172 176 210 227 344 346 388 415 418 440 489 492 496 514 537 569 588 590 595 619 621 622 627 647 665 672 704 799 Tetrastichus incertus a eulophid wasp 25-26 250 308 469 473 840 842 Tetrastichus julis a eulophid wasp 23 250 260 263 284 308 332 349 369 392 393 395 539 540 542 543 571 574 597 626 706 708 709 Tetropium castaneum a cerambycid beetle 73 282 Texas citrus mite Eutetranychus banksi Therioaphis maculata spotted alfalfa aphid 67 87 98 133 159 169 181 192 214 241 2<del>70</del> <del>292</del> 314 336 337 431 527 582 691 831 845 868 Threecornered alfalfa hopper Spissistilus festinus Thrips spp. 149 152 Thrips angusticeps 163 Thrips imaginis apple thrips 860
Thrips major 734 839 Thrips nigropilosus chrysanthemum thrips 227 Thrips obscuratus 40 Thrips tabaci onion thrips 12 307 724 Thyridopteryx ephemeraeformis bagworm 226 347 389 Tinocallis caryaefoliae black pecan aphid 206 207 247 Tipula paludosa European crane fly 412 Tmetothrips subapterus a thrips 19 Tobacco budworm Heliothis virescens Tobacco flea beetle Epitrix hirtipennis Tobacco hornworm Manduca sexta Tobacco thrips Frankliniella fusca Tomato fruitworm Heliothis zea Tomato hornworm Manduca quinquemacuTomato pinworm Keiferia lycopersicella Tomato russet mite Aculops lycopersici Tomicus piniperda a scolytid beetle 86 374 477 860 Toumeyella liriodendri tuliptree scale Toumeyella parvicornis pine tortoise scale 68 72 Toumeyella pini 23 Trachyrhachys kiowa a grasshopper 498 Trialeurodes abutilonea bandedwing whitefly 152 300 513 729 851 Trialeurodes vaporariorum greenhouse whitefly 12 70 307 325 417 449-458 515 548 570 727 729 852 871 875 Trichodes ornatus a clerid beetle Trichogramma maltbyi a minute egg parasite 706 708 709 <u>Trichoplusia</u> <u>ni</u> cabbage looper <u>178</u> 217 344 345 365 490 515 566 594 643 645 669 671 723 727 747 757 764 767 783 796 852. Light traps: 106 200 224 251 281 309 326-327 354 373 396 424 446 447 475 476 501 521 550 551 575 576 602 628 654 655 677 678 710 711 733 751 752 770 787 803 816 826 838 Trioza tripunctata a psyllid 872 878 Trirhabda attenuata a chrysomelid heetle 508 Trogoderma granarium khapra beetle 16 64 86 107 137 397 477 502 552 630 804 817 839 Tropidosteptes pacificus a plant bug 23 471 Tsugaspidiotus pseudomeyeri an armored scale 328 Tuber flea beetle Epitrix tuberis Tuliptree aphid Macrosiphum lirio-Tuliptree scale Toumeyella liriodendri Twolined chestnut borer Agrilus bilineatus Twospotted spider mite Tetranychus urticae Twostriped grasshopper Melanoplus bivittatus Typhlocyba pomaria white apple leafhopper 205 320 Typhlodromus fallacis a phytoseiid mite 496 627

<u>Tyria jacobaeae</u> a cinnabar moth <u>260</u> Tyrophagus dimidiatus an acarid <u>mit</u>e

104

Tytthus mundulus cane leafhopper egg sucker 280 515

#### SLUGS & SNAILS

Theba pisana white garden snail 16 173 186 282 712 804

#### WEEDS

Tanglehead <u>Heteropogon</u> <u>contortus</u> Texas blueweed <u>Helianthus</u> ciliaris

Uredo sp. a rust 186 753 804

### u

#### DISEASES

| Uredo | Ured

#### INSECTS

 $\begin{array}{c} \underline{\text{Udea}} \quad \underline{\text{ferrugalis}} \quad \text{a pyralid moth 788} \\ \underline{\text{Udea}} \quad \underline{\text{profundalis}} \quad \text{false celery leaftier} \quad \underline{164} \quad 783 \\ \underline{\text{Unaspis}} \quad \underline{\text{euonymi}} \quad \text{euonymus scale} \quad \underline{226} \\ \underline{\text{Uranotaenia}} \quad \underline{\text{anhydor}} \quad \text{a mosquito} \quad \underline{250} \\ \underline{253} \quad \underline{\text{Uroplata girardi}} \quad \text{lantana hispid 499} \\ \end{array}$ 

# V

#### DISEASES

#### INSECTS

Vanda thrips Dichromothrips corbetti Vanessa cardui painted lady 536 Variegated cutworm Peridroma saucia Vegetable leafminer Liriomyza munda Vegetable weevil Listroderes costirostris obliquus Velvetbean caterpillar Anticarsia gemmatalis Vespa crabro germana giant hornet Vespula sp. a vespid wasp 706 Vespula germanica 250 Vetch bruchid Bruchus brachialis Vexans mosquito <u>Aedes vexans</u> <u>Vinsonia stellifera a soft scale</u> 16 137 Violet sawfly Ametastegia pallipes Vitacea polistiformis grape root borer 51 196 470

#### SLUGS & SNAILS

Vaginulus occidentalis a veronicel-lid slug 839 Veronicella moreleti a veronicellid slua 86

#### WEEDS

Velvetleaf Abutilon theophrasti



#### DISEASES

Western equine encephalomyelitis virus 648 674 Wheat leaf necrosis Pseudomonas syringae Wheat leaf rust Puccinia recondita Wheat leaf spot Helminthosporium tritici-vulgaris Wheat powdery mildew Erysiphe graminis f.sp. tritici Wheat stem rust Puccinia graminis f.sp. tritici Wheat streak mosaic virus 293 316 583 696 708 Wheat stripe rust Puccinia striiformis White chrysanthemum rust Puccinia horiana White pine blister rust Cronartium ribicola Wildfire Pseudomonas tabaci

#### INSECTS

Wahlgreniella nervata an aphid 75 Walkingstick Diapheromera femorata Walnut aphid Chromaphis juglandicola Walnut caterpillar Datana integer-Walnut husk fly Rhagoletis completa Walnut scale Quadraspidiotus juglansregiae Western bean cutworm Loxagrotis albicosta Western cherry fruit fly Rhagoletis indifferens Western corn rootworm Diabrotica virgifera Western drywood termite Incisiterme Western flower thrips Frankliniella occidentalis Western grapeleaf skeletonizer Harrisina brillians Western oak looper Lambdina fiscellaria somniaria
Western pine beetle Dendroctonus brevicomis Western spotted cucumber beetle Diabrotica undecimpunctata undecimpunctata Western spruce budworm Choristoneur occidentalis Western subterranean termite Reticulitermes hesperus Western tent caterpillar Malacosoma californicum Western tussock moth Orgyia vetusta Western wheat aphid Brachycolus Western yellowstriped armyworm Spodoptera praefica West Indian sugarcane root borer Diaprepes abbreviatus West Indian sweetpotato weevil Euscepes postfasciatus Wheat head armyworm Faronta diffusa Wheat stem maggot Meromyza americana White apple leafhopper Typhlocyba pomaria

White peach scale Pseudaulacaspis

pentagona

White pine aphid <u>Cinara strobi</u>
White pine weevil <u>Pissodes strobi</u>
Willow shoot sawfly <u>Janus abbreviatus</u>
Winter grain mite <u>Penthaleus major</u>
Winter moth <u>Operophtera brumata</u>
Winter tick <u>Dermacentor albipictus</u>
W-marked cutworm <u>Spaelotis</u>
<u>clandestina</u>
Woolly alder aphid <u>Paraprociphilus</u>
<u>tessellatus</u>
Woolly apple aphid <u>Eriosoma lanigerum</u>
Woolly whitefly <u>Aleurothrixus</u>
<u>floccosus</u>

#### SLUGS & SNAILS

White garden snail Theba pisana

#### WEEDS

White cockle <u>Lychnis</u> <u>alba</u> Witchweed Striga lutea

# X

#### DISEASES

Xanthomonas sp. cancrosis B 502 Xanthomonas alfalfae alfalfa bacterial leaf spot 640 742 Xanthomonas citri citrus canker Xanthomonas holcicola sorghum bacterial streak 613 662 693 793 Xanthomonas phaseoli phaseoli bean blight 646 Xanthomonas phaseoli var. sojense bacterial pustule 562 588 618 642 723 744 781 798 Xanthomonas pruni stone fruit bacterial spot 622 Xyleborus eurygraphus a scolytid beetle 16 Xyleborus ferrugineus 7 13 Xyleborus interjectus 222 223 Xyleborus validus 19 40 Xyletinus peltatus an anobiid beetle 39 Xylocrius <u>agassizi</u> a cerambycid beetle 748 Xylosandrus compactus black twig borer 23 249 Xylotrechus rusticus a cerambycid beetle 577



#### DISEASES

Yellow mold Aspergillus flavus

#### **INSECTS**

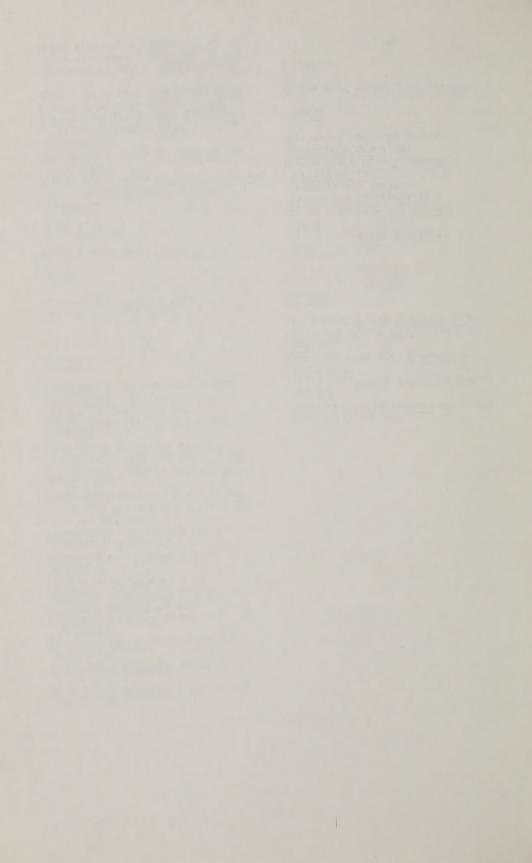
Yellowmargined leaf beetle
Microtheca ochroloma
Yellow peach moth Dichocrocis
punctiteralis
Yellowstriped armyworm
Spodoptera ornithogalli
Yellow sugarcane aphid Sipha
flava
Yellow woollybear Diacrisia
virginica

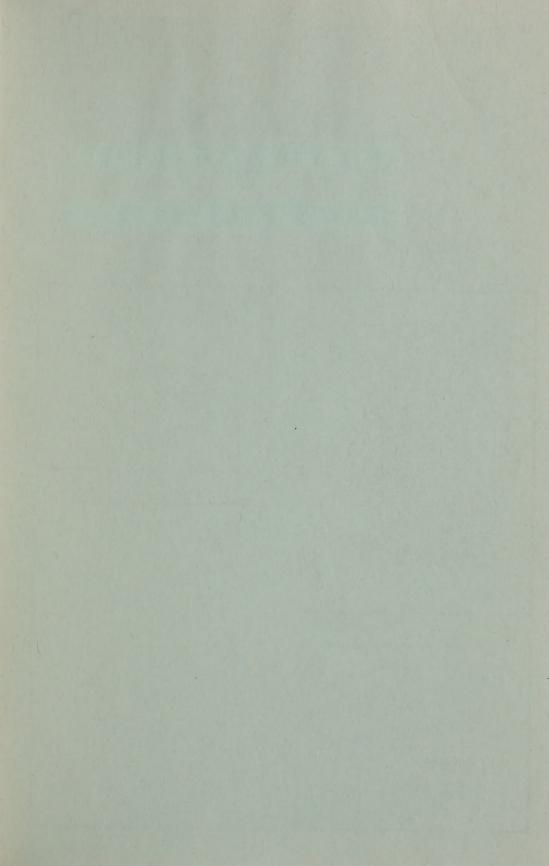
# Z

#### INSECTS

Zebra caterpillar <u>Ceramica</u> <u>picta</u>
<u>Zetzellia</u> <u>mali</u> a phytoseiid mite
<u>260 265</u>
Zimmerman pine moth <u>Dioryctria</u>
<u>zimmermani</u>
<u>Zonitis bilineata</u> a blister beetle
<u>593 601</u>
<u>Zygogramma exclamationis</u> sunflower
beetle 165 438 468







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